

IN THE CLAIMS:

Claim 1 (Currently amended) A liquid chromatography system including:  
a separation column having an internal bore;  
an end fitting fitted at one side to an end of the separation column; and  
transfer tubing fitted to the opposite side of the end fitting;  
wherein the separation column, transfer tubing, and end fitting are ~~constructed~~  
assembled as a permanently joined sealed integral ~~system~~ unit.

Claim 2 (Original) A system according to claim 1, wherein the separation column is a micro, capillary, or nano liquid chromatography column.

Claim 3 (Previously presented) A system according to claim 1, wherein the internal diameter of the internal bore of the separation column is in the range 0.025mm-2.1 mm.

Claim 4 (Original) A system according to claim 3, wherein the internal diameter of the internal bore of the separation column is in the range 0.030mm-1.0mm.

Claim 5 (Previously presented) A system according to claim 1, wherein the liquid chromatography system further includes a protective outer tubular sheath surrounding the separation column.

Claim 6 (Original) A system according to claim 5, wherein the end fitting includes a double ferrule incorporating a frit.

Claim 7 (Original) A system according to claim 6, wherein the double ferrule includes central bore which aligns with the bore of the separation column and the bore of the transfer tubing when the system is assembled.

Claim 8 (Previously presented) A system according to claim 6, wherein the double ferrule is formed as a double-conical shaped component, tapering from the middle of the ferrule to either end of the ferrule.

Claim 9 (Previously presented) A system according to claim 6, wherein the bore of the double ferrule is stepped to accommodate a separation column and transfer tubing of different outer diameters.

Claim 10 (Previously presented) A system according to claim 6, wherein the double ferrule is permanently collapsed so as to fix the capillary column into one end and the transfer tubing into its other end.

Claim 11 (Previously presented) A system according to claim 6, wherein the frit of the double ferrule is a wire mesh frit or a polymer or metal frit formed in the ferrule.

Claim 12 (Previously presented) A system according to claim 6, wherein the frit is formed inside the end of the separation column or transfer tubing.

Claim 13 (Previously presented) A system according to claim 6, wherein the separation column extends midway along the bore of the double ferrule up to one side of the frit.

Claim 14 (Original) A system according to claim 13, wherein the transfer tubing is received within the bore of the double ferrule and extends midway along the length of the double ferrule up to the side of the frit opposite the separation column.

Claim 15 (Previously presented) A system according to claim 1, wherein the separation column is made of glass lined metal tubing or fused silica lined polymer tubing.

Claim 16 (Currently amended) A system according to claim 1, wherein the separation column, end fitting, and transfer tubing are permanently joined by gluing, welding or other fixing means ~~into a single unit~~.

Claim 17 (New) An integrated liquid chromatography assembly including:  
a separation column having an internal bore;  
a pair of end fittings each fitted at one side to respective ends of the separation column; and  
transfer tubing fitted to the opposite sides of the end fittings;  
wherein the separation column, transfer tubing, and end fittings are assembled as a permanently joined sealed integral unit.

Claim 18 (New) An assembly according to claim 17, wherein the separation column is a micro, capillary, or nano liquid chromatography column.

Claim 19 (New) An assembly according to claim 17, wherein the internal diameter of the internal bore of the separation column is in the range 0.025mm-2.1 mm.

Claim 20 (New) An assembly according to claim 19, wherein the internal diameter of the internal bore of the separation column is in the range 0.030mm-1.0mm.

Claim 21 (New) An assembly according to claim 17, wherein the liquid chromatography system further includes a protective outer tubular sheath surrounding the separation column.

Claim 22 (New) An assembly according to claim 21, wherein each of the end fittings includes a double ferrule incorporating a frit.

Claim 23 (New) An assembly according to claim 22, wherein the double ferrule includes central bore which aligns with the bore of the separation column and the bore of the transfer tubing when the system is assembled.

Claim 24 (New) An assembly according to claim 22, wherein the double ferrule is formed as a double-conical shaped component, tapering from the middle of the ferrule to either end of the ferrule.

Claim 25 (New) An assembly according to claim 22, wherein the bore of the double ferrule is stepped to accommodate a separation column and transfer tubing of different outer diameters.

Claim 26 (New) An assembly according to claim 22, wherein the double ferrule is permanently collapsed so as to fix the capillary column into one end and the transfer tubing into its other end.

Claim 27 (New) An assembly according to claim 22, wherein the frit of the double ferrule is a wire mesh frit or a polymer or metal frit formed in the ferrule.

Claim 28 (New) An assembly according to claim 22, wherein the frit is formed inside the end of the separation column or transfer tubing.

Claim 29 (New) An assembly according to claim 22, wherein the separation column extends midway along the bore of the double ferrule up to one side of the frit.

Claim 30 (New) An assembly according to claim 29, wherein the transfer tubing is received within the bore of the double ferrule and extends midway along the length of the double ferrule up to the side of the frit opposite the separation column.

Claim 31 (New) An assembly according to claim 17, wherein the separation column is made of glass lined metal tubing or fused silica lined polymer tubing.

Claim 32 (New) An assembly according to claim 17, wherein the separation column, end fittings, and transfer tubing are permanently joined by gluing, welding or other fixing means.